

Exhibit 1

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

THE SOUTH CAROLINA STATE
CONFERENCE OF THE NAACP, and

TAIWAN SCOTT, on behalf of himself and
all other similarly situated persons,

Plaintiffs,

v.

HENRY D. MCMASTER, in his official
capacity as Governor of South Carolina;
THOMAS C. ALEXANDER, in his official
capacity as President of the Senate; LUKE
A. RANKIN, in his official capacity as
Chairman of the Senate Judiciary
Committee; JAMES H. LUCAS, in his
official capacity as Speaker of the House of
Representatives; CHRIS MURPHY, in his
official capacity as Chairman of the House
of Representatives Judiciary Committee;
WALLACE H. JORDAN, in his official
capacity as Chairman of the House of
Representatives Elections Law
Subcommittee; HOWARD KNAPP, in his
official capacity as interim Executive
Director of the South Carolina State Election
Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER,
LINDA MCCALL, and SCOTT MOSELEY,
in their official capacities as members of the
South Carolina Election Commission,

Defendants.

**Case No. 3-21-cv-03302-JMC-
TJH-RMG**

THREE-JUDGE PANEL

Expert Report of Baodong Liu, Ph.D. re; S.865 (South Carolina's Congressional Map)

April 2, 2022

I. Introduction

I have been retained as an expert by counsel for the Plaintiffs in the above captioned litigation. I have prepared this report pursuant to Federal Rule of Civil Procedure 26(1)(2)(B) regarding S. 865, South Carolina's enacted Congressional Plan.¹

My role as an expert witness regarding the congressional map is threefold. 1) I have been asked to express opinions on whether racially polarized voting (RPV) exists in South Carolina, and whether or not RPV has resulted in the defeat of Black-preferred candidates in South Carolina elections. 2) I have been asked to express my opinions on the effectiveness of the Enacted Congressional Plan in protecting the opportunity of Black voters to elect candidates of their choice, vis-à-vis that of the Plans proposed by the Plaintiffs. 3) Finally, I have also been asked to evaluate whether race plays a greater role than partisanship in the Enacted Plan.

I am being compensated at \$300 per hour for my work on this case. My compensation is not contingent on or affected by the substance of my opinions or the outcome of this litigation. My work in this matter is ongoing, and I reserve the right to amend, modify, or supplement my analysis and opinions.

II. Summary of Professional Qualifications

I am a tenured professor of political science in the Department of Political Science at the University of Utah. I have done extensive research regarding the relationship between election systems and the ability of minority voters to participate fully in the political process and to elect representatives of their choice.

My research has won the Byran Jackson Award for the best study/dissertation about racial voting from the Urban Politics Section of the American Political Science Association, and the Ted Robinson Award from the Southwest Political Science Association. The results of my research have been published in Social Science Quarterly, American Politics Research, Sociological Methods and Research, PS: Political Science and Politics, Urban Affairs Review, Political Behavior, Journal of Urban Affairs, Southeastern Political Review, and American Review of Politics, among other journals. I am also an author or editor of eight scholarly books including Political Volatility in the United States: How Racial and Religious Groups Win and Lose; Solving the Mystery of the Model Minority; The Election of Barack Obama: How He Won, and Race Rules: Electoral Politics in New Orleans, 1965-2006. I have also served as a member of the Board of Directors/Advisors on many national and international organizations such as the National Association for Ethnic Studies, Urban Affairs Review, Journal of Behavioral and Social Sciences, and International Encyclopedia of Political Science (CQ Press).

¹ In this same case, based on a separate schedule for expert disclosures, I have prepared two reports, an initial and rebuttal, regarding South Carolina's enacted House map.

As an expert on RPV analysis, I have published peer-reviewed journal articles and books on the cutting-edge techniques used by academic professionals and supported by courts concerning voting rights cases and the electoral history in the South. I have served as an expert witness for minority plaintiffs in vote dilution cases in states such as Alabama, Arkansas, New York, Louisiana, Utah, and Tennessee. My opinions have been accepted by multiple federal courts (e.g., in New York, Louisiana, and Alabama). Furthermore, I have provided my expertise to Native American Rights Fund, Navajo Nation, and the Lawyers' Committee for Civil Rights Under Law in Washington D.C., and NAACP LDF on census differential privacy policy and methodological issues concerning RPV. I have also been invited to be an instructor of RPV analysis in expert convening programs, organized by such organizations as Native American Rights Fund, Ford Foundation, Southern Coalition for Social Justice, and LDF concerning both the 2010 and 2020 rounds of redistricting.

My applied research and grants have included analyses of ranked choice voting, economic development, racial voting patterns, public school science education, school districts' economic impact on local economy, and various citizen surveys. My grants have come from New America, the National Science Foundation, American Political Science Association, the National Humanities Center, Wisconsin Security Research Consortium, Fond du Lac School District, Johnson Controls, Inc, City of Waupaca (WI), the League of Women Voters, American Democracy Project, and Wisconsin Public Service. I also served as the editor of Urban News for the American Political Science Association's Urban Politics Section, and I was elected as a co-chair of the Asian Pacific American Caucus of the American Political Science Association.

I have served as a commentator or opinion writer for the Salt Lake Tribune, ABC4News, Hinkley Forum, NPR, Associated Press, Daily Utah Chronicle, Milwaukee Sentinel Journal, Daily Caller, and KSL, among other media outlets.

At my university, I served as Associate Chair of the Department of Political Science and the Interim Director of the Ethnic Studies Program, the MLK Committee Chair and a faculty senator.

Attached as **Appendix 1** to this report is a curriculum vitae setting forth more detail about my professional background, which includes a list of cases in which I have testified as an expert by deposition and/or at trial and all publications I have authored or co-authored, including forthcoming publications.

III. Racially Polarized Voting: Definition and Measurement

In *Thornburg v. Gingles* (1986), the U.S. Supreme Court identified three conditions that are necessary to show racial vote dilution under Section 2 of the Voting Rights Act (VRA). The *Gingles* test asks whether: 1) the racial minority group is "sufficiently large and geographically compact to constitute a majority in a single-member district"; 2) the minority group is "politically cohesive" (meaning its members tend to vote for the same candidate); and 3) the "majority votes sufficiently

as a bloc to enable it ... usually to defeat the minority's preferred candidate." In particular, the second and the third preconditions under the *Gingles* indicate the presence of RPV.

Empirically, I used the following two-step operational rules to measure whether a particular election is racially polarized: 1) I first estimate the Black and white group support² for the Black candidate in a biracial election; and 2) if in this biracial election the majority of Black voters cast their vote for the Black candidate, and only a minority of white voters cast their vote for the same Black candidate, then this election is racially polarized.

Since voting in the United States takes place in privacy, the only way to determine whether or not RPV existed in a given election is through statistical procedures. I analyzed the biracial elections based on the Ecological Inference (EI) method developed by Professor Gary King of Harvard University.³ EI is a statistical procedure for estimating voting results of voter groups (in this case grouped by race) and demonstrating the extent to which the race of the voters correlates with voter support for each candidate. EI has been widely used as the most-advanced and reliable statistical procedure for RPV estimates in not only academic research⁴ but also voting rights cases in the last two decades.⁵ To run an EI operation for South Carolina elections, the specific election return data at the precinct level need to be

² Support is defined as over 50% of votes for a particular candidate.

³ See Gary King, A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data (Princeton University Press, 1997).

⁴ There are other statistical procedures that have been used in my field (e.g., regression analyses) but are inadequate for the analysis necessary for the RPV analysis I conduct here. For example, a major limitation of Regression analyses is that it may provide unrealistic, even misleading, estimates (e.g., the Black voting group provided a Black candidate with 105.7% of their votes while the non-Black group voted for him/her at the -9.5% level). Regression analyses also unrealistically assume that all Black voters, regardless of which precinct they are assigned, voted at the same rate for the Black candidate in a given election. By comparison, the EI method *always* generates realistic estimates, and it also provides the point estimates for racial voting patterns and the standard errors (or 95% confidence interval) associated with these point estimates, which is to be understood as the uncertainty boundaries beyond the point estimates. The point estimates are to be considered as the most likely vote percentages cast for the Black candidate by different racial groups in a given election.

⁵ See, e.g., Preliminary Injunction Memorandum Opinion & Order, Doc. No. 107, pp. 66-68, 70, 174-75, *Milligan, et al. v. Merrill, et al.*, Case No. 2:21-cv-01530-AMM; *Thomas, et al. v. Merrill, et al.*, Case No. 2:21-cv-01531-AMM (July 24, 2022 N.D. Ala. 2022) (3-judge ct.); *Montes v. City of Yakima*, 40 F.Supp.3d 1377, 1402 (E.D. Wash. 2014); *Bone Shirt v. Hazeltine*, 336 F.Supp.2d 976, 1003 (D. S.D. 2004); *Rodriguez v. Pataki*, 308 F.Supp.2d 346, 387-88 (S.D.N.Y. 2004).

matched with the racial turnout data provided by South Carolina Election Commission.⁶

IV. Opinions

I have formed the following opinions:

Based on the data available at the time of writing this report, voting in South Carolina during the last four election cycles where there is a choice between or among Black and white candidates is “racially polarized” in that Black voters in all seven (7) general Congressional elections I analyzed have expressed a clear preference for the same candidate, and in the elections I analyzed, the preferred candidate by Black voters was a Black candidate. Furthermore, this preference was not shared by the white voters who were the majority of the electorate.⁷ As a result, the Black preferred candidates (BPCs) were typically defeated in biracial elections in South Carolina.

In addition to the 7 general Congressional elections, I also analyzed nine (9) primary elections for Congressional seats in South Carolina. My findings show that while white voters vote as a bloc against Black-preferred candidates (BPCs) in those primary elections, Black voters demonstrated a much higher level of support for Black candidates who showed a potential of winning in primary elections, such as by getting into a runoff or being an incumbent. When a district is configured in a way that there is no chance for a Black candidate to win, Black voters may choose to vote for a white candidate in a Democratic primary.

Finally, I also analyzed six (6) recent state-wide elections. In five of those elections, voters were given a choice between or among Black and white candidates. The sixth election featured a white candidate competing against another white candidate at the top of the ticket. All of those elections have also been racially polarized.

Moreover, based on the empirical data from the most recent four state-wide elections, it is clear that the redistricting maps for South Carolina’s Congressional districts that the two South Carolina NAACP proposed (Plaintiffs’ Plans), but were not enacted, outperform the plan enacted by South Carolina (Enacted Plan) in providing an opportunity for Black voters to elect candidates of choice in Congressional elections in the presence of demonstrated RPV patterns.

⁶ The election return data at the precinct level are available from South Carolina Election Commission (at <https://www.scvotes.gov/election-results>). See **Appendix 3** for the details regarding data acquisition, matching and aggregation.

⁷ Following the 2010 and 2020 redistricting cycles, white voters comprise a majority of the voters in six of South Carolina’s congressional districts (i.e., CDs 1, 2, 3, 4, 5, 7). Under 2010 and 2020 congressional maps, Black voters constitute a majority and plurality, respectively, of one of those seven districts (i.e., CD6).

Based on an empirical analysis, I find that race, rather than presumed party affiliation, is a **driving factor** in whether voters remain in or are moved in and out of CD 1 in the Enacted Plan.

V. Racially Polarized Voting in South Carolina

In a case challenging a redistricting plan of Congressional districts, such as this one, the empirical evidence of the extent to which racially polarized voting (or lack thereof) has taken place is essential. This is because Plaintiffs' Second Amended Complaint alleges that the Enacted Plan "cracks" Black voters among certain Congressional districts, specifically CDs 1, 2, and 5. Though Plaintiffs have not brought a Section 2 claim, their theory is that the effect of any cracking of Black voters must be considered with the existence of any RPV. If Black voters are cracked and are a minority of voters in a congressional district in which white voters are the majority or supermajority of voters, RPV can function to deny or diminish Black voters' ability to elect or otherwise impact the elections of their preferred candidates. In other words, without RPV, the cracking of Black voters (if proved to be the case) would not have an effect on the opportunity of Black voters to elect candidate of their own choice. If Black and white voters in a disputed jurisdiction usually share the same preference for a particular candidate, or put another way, a sufficient number of white voters cross over usually to support the candidate preferred by Black voters (i.e., no RPV), then regardless how a district composed (including whether Black voters are cracked), the election outcomes should be consistent before and after the redistricting process.

To examine the extent of RPV (or lack of) in South Carolina for Plaintiffs' challenge to certain Congressional districts, recent Congressional elections providing a choice between voting for a white candidate and voting for a minority (in this case, Black) candidate (i.e., biracial elections) are generally considered the most probative for assessing RPV.⁸ These Congressional elections concerning the electoral offices at issue in this matter are called endogenous elections. With the assistance of the Counsel for the Plaintiffs, I was able to identify 7 general elections in which there was both a Black candidate and a white candidate competing in a district in which white voters form the majority during the last four election cycles.

A) Endogenous General Elections

Table 1 shows the results of EI operations on the 7 endogenous general elections I examined between 2014 and 2020. Using the empirical definition of RPV explained above, I examined the levels of racial support for the Black candidates in these 7 Congressional elections. The most important finding is that Black voters have provided majority support for the Black candidates in all of these elections, and their

⁸ Recent, biracial endogenous elections generally are the most probative elections. See, e.g., *Gingles*, 478 U.S. at 80; *Bone Shirt v. Hazeltine*, 461 F.3d 1011, 1020-21 (8th Cir. 2006); *U.S. v. Charleston Cnty.*, 318 F. Supp. 2d 302, 313 (D.S.C. 2002).

preference was not shared by a majority of white voters.⁹ Thus, RPV existed in these 7 elections. As a result of RPV, the Black preferred candidates (BPCs) were all defeated in these endogenous elections.

Table 1: Estimated Racial Support for Black Candidate in Endogenous Elections (General Elections)

Year	Congressional District	Black Candidate	%White Voter Support for Black Candidate (s.e.)	%Black Voter Support for Black Candidate (s.e.)	Black Candidate Won?	RPV?
2020	3	Cleveland	13.21 (.07)	96.61 (.31)	No	Yes
2020	5	Brown	18.22 (.1)	95.31 (.25)	No	Yes
2020	7	Watson	19.78 (.2)	93.67 (.7)	No	Yes
2018	4	Brown	22.65 (.6)	98.58 (.25)	No	Yes
2018	7	Williams	21.81 (.3)	95.45 (.83)	No	Yes
2016	3	Cleveland	12.21 (.13)	65.17 (2.92)	No	Yes
2014	7	Tinubu	16.61 (.22)	97.17 (.52)	No	Yes

B) Endogenous Primary Elections

I also was able to identify 9 partisan primary elections for Congress between 2014 and 2020 which involved at least one Black candidate in South Carolina. **Table 2** shows the RPV results for these 9 primary elections.

In three of these 9 primaries, the majority of Black voters voted for a Black candidate who did not receive the majority vote from the white electorate. Thus, RPV existed in these three elections. Two of these three elections involved Brandon Brown, a Black candidate, who first competed in the Democratic primary in Congressional District (CD) 4 in 2018. Brown won enough of the vote in the primary to move on to the Democratic primary runoff. Brown eventually was defeated in the general election due to RPV (see **Table 1** above). The third primary that revealed a RPV pattern was in CD 6's 2014 Democratic primary in which Representative Clyburn, who is Black, defeated his white opponent, Karen Smith.

⁹ I used ei R package to perform RPV analysis through which white and non-white racial group support for the Black candidates were derived based on the merged racial turnout and election return data at the precinct-level (see **Appendix 3** for data source and matching information). The standard errors for racial group support for Black candidates are in the parentheses of **Table 1**.

Table 2: Estimated Racial Support for Black Candidate in Endogenous Elections (Primary Elections)

Year	Congressional District	Primary (Party)	Black Candidate	%White Voters Support for Black Candidate (s.e.)	%Black Voter Support for Black Candidate (s.e.)	Black Candidate Won?	RPV?
2020	1	(Rep)	Mole	5.23 (.1)	24.22 (.99)	No	No
2018	1	(Dem)	Smith	17.93 (.36)	40.55 (.44)	No	No
2018	3	(Dem)	Cleveland	15.31 (.99)	40.24 (.64)	No	No
2018	4	(Dem)	Brown#	8.04 (.65)	50.1 (.66)	Runoff	Yes
2018	4	(Dem/runoff)	Brown##	41.84 (.3)	94.65 (.65)	Yes	Yes
2018	5	(Dem)	Moore###	15.4 (1.9)	18.1 (1.2)	No	No
2014	3	(Dem)	Cleveland	18.35 (1.36)	45.85 (.88)	No	No
2014	6	(Dem)	Clyburn	43.28 (1.11)	94.83 (.28)	Yes	Yes
2014	6	(Rep)	Winn	33.74 (.1)	19.99 (1.6)	No	No

#Brown in 2018 Congressional district 4 Democratic primary received 28.5% of the total votes, and got into a runoff with the leading white candidate (Turner) who received 29.5% of the total votes.

At the time of this report, I did not have access to the racial turnout data from the South Carolina Elections Commission for this runoff. Thus, I used the racial demographics based on the 2020 Census in the RPV estimation.

Moore was one of the two Black candidates in the contest, and the other Black candidate (Ali) received the fewest votes cast (only 13.3%) and, as a minor candidate, was not included in this table.

In the six non-racially polarized elections, two elections (CD 1 of 2020 and CD 6 of 2014) were Republican primaries in which the Black candidates failed to receive support from both white and Black voters and lost the election. In contrast to the racially polarized primaries discussed above, the other four non-racially polarized elections did not involve a Black candidate that was able to make it to runoff or ran as an incumbent. These Democratic primaries took place in CDs 1, 3 and 5 where a Black candidate is very unlikely to win in these racial configurations even if the majority of Black voters supported this candidate.

The above finding concerning primary elections is in line with my own empirical studies of voting patterns in the South in which Black voters are strategic in making their voting decisions.¹⁰ Empirical and quantitative research demonstrates

¹⁰ For a discussion of strategic voting model, see, e.g., Liu, Baodong. 2007. *Race Rules: Electoral Politics in New Orleans, 1965-2006*. Lexington Books; see also Vanderleeuw, James and Baodong Liu, 2002. "Political Empowerment, Mobilization, and Black Voter Roll-off," *Urban Affairs Review* 37 (3): 380-396 (discussing Black voter strategic non-voting); and Hayes, Danny and Seth C. McKee. 2009. "The

that Black voters evaluate the racial composition of a district before casting their votes, and may choose not to support the Black candidate because of the inevitability of Black defeat as a result of white bloc voting in a white-dominant district. The fact that in CD 4, a white voter-dominant district, candidate Brown, who is Black, made it to and won the Democratic primary runoff in 2018 clearly increased the potential to elect Brown in the general election. Notably, based on my research, Brown is the only Black candidate I am aware of to force a runoff after a contested, bi-racial congressional primary election and then be defeated in a contest, bi-racial general election in the last three electoral congressional election cycles. Black voters became much more united behind Brown in both the runoff and the general elections while white voters formed a voting bloc against him and were able to defeat him in the general election.

C) Exogenous Elections

Since the redistricting process involves voters from the whole State of South Carolina, I also examined six elections for statewide elected offices over four recent election cycles. The elections that did not concern the electoral offices at issue in this matter are called exogenous elections. The six statewide exogenous elections in South Carolina were for the 1) U.S. President in 2020, (2) U.S. Senate in 2020, (3) 2018 Secretary of State, (4) 2018 State Treasurer, (5) 2016 U.S. Senate election, and (6) 2014 special U.S. Senate election.

Three of these exogenous elections were biracial, involving both white and Black candidates. The 2020 U.S. President election, however, involved white candidates as the nominees for both major political parties on the top of the ticket.¹¹ Two of these exogenous elections, the 2014 and 2016 Senate elections, featured two Black candidates at the top of the ticket and white candidates as minor-party nominees.

All six exogenous state-wide elections analyzed in this report showed a high level of racially polarized voting, as shown in **Table 3**.

Participatory Effects of Redistricting” American Journal of Political Science 53(4):1006-1021 (discussing how voters engaged in non-voting by avoiding making mistakes in a newly drawn district).

¹¹ The 2020 election did include a Democratic Vice-President nominee, Kamala Harris, who is Black and an Asian American person.

Table 3. Estimated Racial Support for Black Candidate in Exogenous Elections

Year	Election	General/ Primary	Black- preferred Candidate	%White Voter Support for Black- preferred Candidate (s.e.)	%Black Voter Support for Black- preferred Candidate (s.e.)	Black- preferred Candidate Won in SC?	RPV?
2020	US President	G	Biden	23.43 (.00)	97.37 (.1)	No	Yes
2020	US Senate	G	Harrison	23.49 (.00)	98.91 (.12)	No	Yes
2018	Secretary of State	G	Whittenburg	22.53 (.00)	97.10 (.14)	No	Yes
2018	State Treasurer	G	Glenn	21.80 (.00)	97.33 (.00)	No	Yes
2016	US Senate	G	Dixon	14.42 (.00)	93.07 (.18)	No	Yes
2014	US Senate	Special	Dickerson	13.16 (.00)	95.42 (.17)	No	Yes

Specifically, Joseph Biden in the 2020 Presidential election received 97.37% of Black voter support and only 24.43% of white voter support in South Carolina. In the 2020 U.S. Senate election, Jamie Harrison, a Black candidate, ran against the white incumbent Republican candidate, Lindsay Graham. Harrison received 98.91% of Black voter support and 23.49% of white voter support, and was defeated with 44.2% of the total votes cast.

In the 2018 Secretary of State election, Melvin Whittenburg received 97.1% of Black voter support and only 22.53% of white voter support. In the same year, Rosalyn Glenn, a Black candidate competed in the State Treasurer election against a white Republican opponent, Curtis Loftis. Glenn received 97.33% of Black voter support and only 21.8% of white voter support, and was defeated with 42.5% of the total votes cast.

The final two exogenous elections involved U.S. Senator Tim Scott, a Black Republican candidate, who was elected in the 2014 special election and reelected in the 2016 general election. The RPV analysis shows, however, that he was not the preferred candidate of Black voters in South Carolina. Instead, his opponents, Joyce Dickerson in 2014 and Thomas Dixon in 2016, both Black and Democratic candidates, each received more than 90% of Black voter support. Scott was elected primarily because of the white support for him at more than 70% in both

elections. Thus, these two exogenous elections were also highly racially polarized.¹²

VI. Effectiveness Analyses

1. Background

The 2020 Census shows that Black voters are 25.28% of the voting-age population (VAP) in South Carolina. Based on the pure proportional representation derived from almost a quarter of total VAP, this Black voter presence in South Carolina should translate to more than 1.7 Congressional seats out of the total of seven seats designated to South Carolina. White voters are 65.3% of the VAP, which should translate to about 4.6 seats out of the total seven Congressional seats. My empirical analysis of the Enacted Congressional Plan of South Carolina takes a first look at the number of seats that may be won by white candidates in Congressional elections vis-à-vis BPCs.

Based on the extremely high level of RPV demonstrated above, especially in general Congressional elections in South Carolina, it is more likely for white candidates to win in districts where they are the majority of the VAP. Six of seven CDs based on the Enacted Plan have a white-majority VAP. These are CDs 1 through 5 and CD 7 (white VAP of 71.14% (CD 1), 64.06% (CD 2), 74.05% (CD 3), 67.05% (CD 4), 66.49% (CD 5) and 67.12% (CD 7)). More importantly, Black voters are spread out fairly evenly in these six CDs according to the Enacted Plan. Three of these districts (CDs 1, 3, and 4) have Black voters at about 16-19% of the VAP, while the other two (CDs 2 and 7) have Black voters just about 25% of the VAP. These evenly distributed Black voters in the six CDs lead to a clear advantage of white voters as Black voting strength is reduced to minimize their success in winning Congressional elections.

Before I present the empirical findings on the probability of winning for Black-preferred candidates in these six districts (i.e., the effectiveness analysis), it is also necessary to note that there is one district based on the Enacted Plan with a Black VAP share that surpassed that of the white VAP.

CD 6 is a district that has elected its Representative, Jim Clyburn, since 1992. As the House Majority Whip, Mr. Clyburn, a Black incumbent, ran his elections in the district with more than a 52.5% VAP identifying as Black before 2022. The newly Enacted Redistricting Plan reduced the Black VAP level to 46.9%, while increasing the white VAP to 44.6%. This racial compositional change certainly makes white voters more influential than they were prior to 2022.

To examine the effects of the Enacted Plan, vis-à-vis those of the two Plans proposed by the Plaintiffs, I provide the Effectiveness Analyses (EAs) in order to

¹² Both the 2014 and the 2016 U.S. Senate elections analyzed here involved white candidates running as minor-party nominees who received collectively less than 5% of the total votes cast.

show the relative opportunities for Black voters to elect the candidates of their choice in each of the plans. My comparative study of four South Carolina Congressional redistricting plans is based on the data from the four most recent exogenous statewide elections in South Carolina and the racial demographic data from the 2020 census. These four plans are the Enacted Plan that has been passed by the South Carolina Legislature and signed into law by the Governor, S. 865, the Harpootlian Plan,¹³ and the two congressional plans that the Plaintiff South Carolina NAACP proposed during the legislative process.¹⁴

a. What is an Effectiveness Analysis?

An effectiveness analysis is a comparative study of two or more redistricting plans. This comparative study reports the different opportunities for racial minority voters (in this case, Black voters) to elect the candidates of their choice, given how the different redistricting plans have determined the racial configuration of a certain jurisdiction under legal dispute, and the extent to which RPV has affected the election outcomes in the given jurisdiction.

b. State-Wide Elections Used to Conduct an Effective Analysis

To compare the Enacted Plan with the Plaintiffs' Plans, I used four state-wide exogenous elections about which I have reported the RPV findings above—the 2020 Presidential election, the 2020 U.S. Senate election, the 2018 Secretary of State election and the 2018 State Treasurer election. These four elections were state-wide elections that involved all voters in South Carolina and were from the most recent statewide election cycles, and thus can help project how voters will vote in near future elections in South Carolina.

2. Effective Analysis Results

Table 4 shows that both Plaintiff proposed Plans outperform that of the Enacted Plan in providing Black voters an ability to elect BPCs in two districts as compared just one in the Enacted Plan (or the plan implemented following the 2010 census). Both CD 6 and CD 1 have realistic chances to elect BPCs according to either of the Plaintiff's proposed Plans. By comparison, the Enacted Plan not only provides an ability to elect a BPC in only one district (CD 6), but also, as compared to the plan implemented following the 2010 census, the Enacted Plan is likely to be even less effective for Black voters' chance to elect BPCs in CD 1 based on this analysis. It is also worth noting that the Harpootlian Plan also would improve the effectiveness of CD 1 as compared to the Enacted Plan; however it is also less effective than the Plaintiffs' proposed plans. The increase of BVAP to 34% in CD 5 under the Harpootlian Plan would provide the

¹³ [Senate 2021 Redistricting | Plan Proposals \(scsenate.gov\)](https://redistricting.scsenate.gov/planproposals.html) (see Floor Amendment 3 – Harpootlian).

¹⁴ <https://redistricting.schouse.gov/publicsubmissions.html> and <https://redistricting.scsenate.gov/planproposal.html> (see NAACP submissions 1 and 2 on the redistricting pages for both South Carolina's House and Senate).

highest opportunity for Black voters to impact election outcomes by increasing the average percentage vote share for BPCs to 47% (as compared to 41% under the Enacted Plan).

Table 4: Effective Analyses for Enacted Congressional Redistricting Plans, SC¹⁵

District	CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
BVAP (original)#	17%	24%	17%	18%	26%	53%	25%
Enacted Plan	17%	25%	18%	19%	25%	47%	25%
Harpootlian Plan	21%	22%	16%	16%	34%	50%	18%
Plaintiff_Plan 1	35%	21%	16%	17%	24%	53%	12%
Plaintiff_Plan 2	24%	20%	18%	19%	20%	50%	25%
WVAP (original)	71%	67%	74%	68%	66%	40%	67%
Enacted Plan	71%	64%	74%	67%	67%	45%	67%
Harpootlian Plan	67%	69%	74%	72%	58%	43%	72%
Plaintiff_Plan 1	54%	70%	74%	70%	67%	40%	78%
Plaintiff_Plan 2	65%	69%	74%	68%	70%	42%	67%
RPV (original)	100%	100%	100%	100%	100%	100%	100%
Enacted Plan	100%	100%	100%	100%	100%	100%	100%
Harpootlian Plan	100%	100%	100%	100%	100%	100%	100%
Plaintiff_Plan 1	100%	100%	100%	100%	100%	100%	100%
Plaintiff_Plan 2	100%	100%	100%	100%	100%	100%	100%
Average % vote for BPC (original)	45%	42%	31%	38%	41%	68%	41%
Enacted Plan	44%	42%	31%	39%	41%	66%	41%
Harpootlian Plan	50%	35%	33%	33%	47%	64%	38%
Plaintiff_Plan 1	53%	36%	32%	35%	40%	65%	42%
Plaintiff_Plan 2	51%	39%	31%	38%	37%	65%	41%

¹⁵ BVAP in this table is measured by any-part BVAP from the 2020 census.

A Further Look at How the CDs Are Reconfigured Under the Enacted Plan

Table 5 provides the detailed sources/changes of each Enacted CD. Voters, based on the Enacted Plan, may find themselves either “remaining in” their prior district, or “being moved out” of their prior district (due to the new assignment of their Voting Tabulation Districts or VTDs). The newly Enacted CD 1, for example, according to Table 5, is composed of VTDs of the Census which were originally located in CD 1 (i.e., voters “remained in” CD 1) and CD 6 (i.e., voters were “moved in” to CD 1 from CD 6).

Table 5 also shows that CD 6 (a district that has lost its status as a district comprised of a majority of Black voters) was indeed a district that was reconfigured heavily by the Enacted Plan. Other than CD 1, which saw VTDs moved to CD 6, CDs 2 and 5 are also the original (2010) districts that contributed to the new configuration in CD 6.

Table 5: How VTDs were moved around based on the Enacted CD Plan?

Enacted District	Voters from original Districts	# of VTDs remained	# of VTDs moved out	# of VTDs split into 1+
1	1, 6	301	32	21
2	2, 6	279	6	16
3	3, 4, 5	331	25	11
4	4, 3	214	3	6
5	5, 4	329	10	8
6	6, 1, 2, 5	340	74	25
7	7, 6	322	2	4

The movements of VTDs may derive from many factors. They may be a result of rebalancing populations following the census (as CD 1 was nearly 12% overpopulated, while CD 6 was 11.59% underpopulated), or consolidating incumbents’ opportunities to stay in office, or something else. The following section will focus specifically on the question about whether or not there is empirical evidence that race rather than the assumed party affiliation of voters determined which voters were moved in and moved out of CDs in the redistricting process of the Enacted Plan.

VII. An Empirical Test of Race v Party

My empirical analysis of party vis-à-vis race starts with the fact that a voter from a given pre-redistricting CD may face one of the two mutually exclusive conditions:

First, the voter is assigned to the same district based on the Enacted Plan. This is because the VTD in which the voter resides is determined by the Enacted Plan to

“remain” in the district. We can call all the VTDs that are determined by the Enacted Plan to remain in the district as the “Core” VTDs of the given district as far as the redistricting is concerned.

Second, the voter is assigned to a different district based on the Enacted Plan. This is because the VTD in which the voter resides is determined by the Enacted Plan to “move out” of the district. We can call all the VTDs that are determined by the Enacted Plan to move out of the district as the “Out” VTDs as far as the redistricting is concerned.

It is also important to point out that as the redistricting decides whether and how to put VTDs into the “Core” or “Out” categories in terms of the pre-redistricting district, new voters are “moved into” the given district from outside of the district. We can call these the “Into” VTDs.

Thus, for a new district that is reconfigured based on the Enacted Plan, we use the three categories of **Core**, **Out**, and **Into** to differentiate all the voters whose new district may be related to the given district one way or another. Once VTDs are classified based on the above categories, we can then examine how different voters are assigned to their respective districts. In particular, we are interested in whether a voter’s racial identity vis-à-vis the presumed partisanship of this voter has a relationship to whether a voter remains in his/her original district (core) or is moved into or out of a district.

Empirically, if race is not a driving factor in the Enacted Plan, then a voter is randomly assigned to a district without any statistically-proven evidence of the association between race and assignment category. The same can be said for partisanship: if partisanship is not a driving factor in the Enacted Plan, then a voter is randomly assigned to a district without any statistically-proven evidence of the association between party affiliation and assignment category.

The Plaintiffs allege that the Enacted Plan violates the Constitution because of the existence of racial (not partisan) gerrymandering and intentional vote dilution. In particular, the Plaintiffs challenge CDs 1, 2 and 5 under these legal theories. The newly reconfigured and enacted CD 1 is located in the Southern region of South Carolina that includes all or parts of six counties (Beaufort, Berkeley, Charleston, Colleton, Dorchester, and Jasper). The City of Charleston, in particular, is the largest city in South Carolina that spreads across both Berkeley and Charleston Counties. With the rapid population growth at the 18.19% rate in Charleston in the last decade, the redistricting process in South Carolina had to consider the effect on the Black community which represents almost 22% of the city’s population.

To empirically examine whether race vis-à-vis party plays a role in the redistricting process for the Enacted Plan involving CDs 1 and 2, I use the racial turnout data from the 2018 Governor’s Democratic primary and the 2018

Governor’s Republican primary from the South Carolina Election Commission. The racial turnout data from these gubernatorial partisan primaries are the most reliable data because in South Carolina (which does not have partisan voter registration data) voters may decide which party to vote for in a partisan primary. The 2018 gubernatorial race involves candidates from both major parties who held competitive primary contests simultaneously. **Table 6** shows the counts of the voters in the Democratic and Republican primaries in the 2018 gubernatorial race. Furthermore, Table 6 lists the crosstabs of party and race for the primaries.

Table 6
Race v Party in CD 1 of Enacted Plan, South Carolina¹⁶

	White_Dem	Black_Dem	White_Rep	Black_Rep
Core	15,825 (17.3%)	10,121 (11.1%)	64,331 (70.3%)	1,236 (1.4%)
Into	524 (9.0%)	2,176 (37.2%)	2,742 (46.8%)	415 (7.1%)
Out	3,651 (22.1%)	3,640 (22.0%)	9,103 (55.0%)	164 (1.0%)

The first row of Table 6 shows clearly that white voters are much more likely to be in the Republican primary whereas Blacks voters are more likely to be in the Democratic primary, in terms of the **Core** category (i.e., those voters whose VTD remained in CD 1 based on the Enacted Plan).¹⁷ Democratic voters are in the first two columns of Table 6 while Republican voters are in the third and fourth columns. The white Democratic voters are 17.3% of the total voters that remained in CD 1 while only 11.1% of these “kept-in” voters are Black Democratic voters.

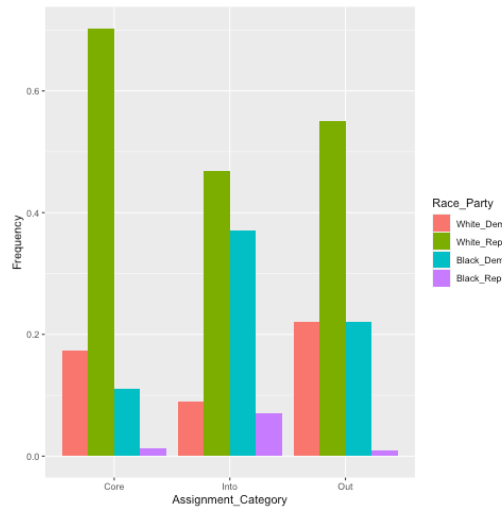
Table 6 also provide more details about the voters who are “moved into” and “moved out of” CD 1 based on the Enacted Plan. Clearly if party rather than race was the driving explanation for why voters were moved out or in CD 1, equal shares of white and Black voters with the same party affiliation would be impacted. But this is not the case based on my analysis.

¹⁶ The cell values of this table are from the 2018 gubernatorial partisan primary data published by the South Carolina Election Commission.

¹⁷ There were also voters who did not vote in these primaries. They are excluded from this empirical analysis because of lack of data on their racial identity and partisan participation.

Figure 1 visualizes the findings presented in Table 6.

Figure 1
Visualizing Race v Party of CD 1 of Enacted Plan, South Carolina



The “Core” category on the left of **Figure 1** shows that white Republicans are clearly the most dominant electoral sub-group and white Democrats are the second largest group in the Enacted CD 1. Black voters, on the other hand, are the smallest in the “Core” category regardless of their partisanship. This finding provides the first indicia that race may be more important than party in the Enacted Plan.

Moving from the left to the right in **Figure 1**, we see the “Into” and “Out” categories. Again, if party rather than race was the driving explanation for why voters were moved out or into CD 1, equal shares of white and Black voters with the same party affiliation would be impacted across each category. **Figure 1** shows, however, that regardless of party participation in the two primary elections analyzed, Black voters, unlike their small shares in the Core category, are much more likely to be moved out or moved into CD 1.¹⁸ In particular, it is through the cracking of Black voters in the Northern Charleston area and moving them into CD 6, and moving in Black voters from CD 6 into CD 1, that the Enacted Plan reveals the cracking of Black voting strength particularly in CD1.

¹⁸ Under the Enacted Plan, Black voters are moved into CD 1 from both Berkeley and Beaufort counties. In both cases, this is because these counties were made whole in CD 1 when they had previously been split under the post-2010 congressional map. In particular, on the surface some effort was made to improve CD 1’s respect for traditional principles by keeping Berkeley County whole. Nonetheless, almost all of the areas moved in to CD 1 are the parts of Berkeley County that were previously in CD 6 which have heavy Black populations. Furthermore, to keep the Black VAP in CD 1 low, the Enacted Plan replaced the Black voters moved in to CD1 from Berkeley by moving out even more Black voters from the Charleston area.

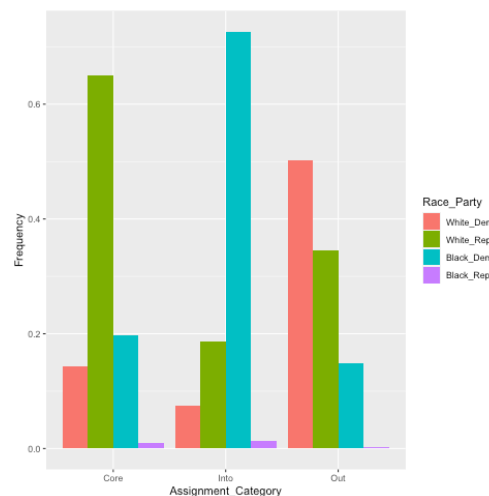
Additionally, my empirical analysis also shows that voters in precincts with large white VAPs who voted in the Democratic primary in 2018 were moved from CD 2, particularly in Richland, into CD 6, though precincts with voters identified as Black Democrats (based on the 2018 primary) were left in CD 2. **Table 7** provides the detailed counts of the voters in the Democratic and Republican primaries in the 2018 gubernatorial race for CD 2. As shown in **Table 7**, there were 14,051 white Democrats that were left in CD 2 after 1,682 white Democrats were moved to CD 6 under the Enacted Plan. In contrast, as many as 19,337 Black Democrats were left in CD 2 and only 496 Black Democrats were moved into CD 6.

Table 7
Race v Party in CD 2 of Enacted Plan, South Carolina

	White_Dem	Black_Dem	White_Rep	Black_Rep
Core	14,051 (14.3%)	19,337 (19.7%)	63,799 (65.0%)	973 (1%)
Into	95 (7.4%)	930 (72.7%)	238 (18.6%)	17 (1.3%)
Out	1,682 (50.3%)	496 (14.8%)	1,158 (34.6%)	10 (.3%)

If party rather than race was the driving explanation for why voters were moved out or left in CD 2, equal shares of white and Black voters with the same party affiliation would be impacted, but that is not what is shown in **Figure 2**. Black Democratic voters and white Democratic voters are the largest sub-groups in the “Into” and “Out” categories. Thus, there is also empirical evidence for the greater role of race than party as far as to how voters were impacted in CD 2.

Figure 2
Visualizing Race v Party of CD 2 of Enacted Plan, South Carolina



VIII. A verification study of race v. party

In this section, I provide a further verification study of the conclusion I made above concerning the greater role that race plays vis-à-vis party in the Enacted Congressional Map. This verification study is derived from an approach adopted by Dr. Stephen Ansolabehere in *Harris v. McCrory*, 159 F. Supp. 3d 600 (M.D.N.C. 2016), aff'd sub nom. *Cooper v. Harris*, 137 S. Ct. 1455, (2017).

Based on Dr. Ansolabehere's approach, the redistricting process involves the decision of drawing voters from a larger base area to assign them to the given district according to the redistricting plan. This larger base area is called the "envelope," which essentially is the collection of counties that encompass all sub areas that voters reside in. As explained above, in the Enacted CD 1, for example, voters are from six counties of South Carolina—Beaufort, Berkeley, Charleston, Colleton, Dorchester, and Jasper. These six counties collectively are called the envelop for CD 1 in the Enacted Map.

To find whether or not race (or party) plays a major role in the Enacted Plan, one can evaluate the probability of voters being assigned to the district of interest. If race is not a driving factor, then white and Black voters in the envelope would have roughly the same probability of being assigned to the district. If, on the other hand, Black voters are found to be assigned to the district with a much higher/lower rate than white voters, then race is proved to be no longer a random factor.

Using 2020 Census data, **Table 8** shows how voters are assigned from the envelop to the district with respect to Enacted CD 1. The first row indicates that voters in all six counties (i.e., the envelope) have a 68.87% chance of being assigned to CD 1. But white voters have a greater probability of being assigned to CD 1 (74.43%) as opposed to Black voters (52.69%).

Table 8: Enacted CD 1 and Assignments of Voters from the Envelope

Group	VAP in Envelope	VAP in District	(% of the Group in Envelope assigned to District)
Total	82,8405	570,538	(68.87%)
White	545,365	405,889	(74.43%)
Black	175,920	92,684	(52.69%)
Hispanic	59,440	38,918	(65.47%)
Other	47,680	33,047	(69.31%)

Again, if we use the 2018 Democratic and Republican Gubernatorial primaries data, we can examine how voters from the envelope are assigned to CD 1 and evaluate whether race plays a bigger role than party in the Enacted Plan. **Table 9** shows the results of this evaluation.

Table 9: Enacted CD 1 and Assignments of Voters—race v. party

Party Primary	Number of Voters in Envelop	Number of Voters in District	(% of Group That is in District)
White_DEM	24,083	16,614	68.99
Black_DEM	25,397	12,864	50.65
White_REP	85,108	68,716	80.74
Black_REP	2,053	1,697	82.67

As shown in **Table 9**, with respect to voters in the same Democratic Party, white Democratic voters (68.99%) are much more likely to be assigned to CD 1 from the envelop than Black Democratic voters (50.65%). With respect to the Republican Party, Black Republican voters are slightly more likely (82.67%) to be assigned to CD 1 than white Republican voters (80.74%). But there are only a total of 2,053 Black Republicans in the envelope. In comparison, there were as many as 25,397 Black Democrats. Thus, the overall probability of Black voters (no matter their party affiliation) of being assigned to CD 1 is much lower than that of white voters.

Table 10 shows how voters are assigned from the envelop to the district with respect to Enacted CD 2. The first row indicates that voters in the envelope have a 73.28% chance of being assigned to CD 2. But white voters have a greater probability of being assigned to CD 2 (83.33%) as opposed to Black voters (53.93%).

Table 10: Enacted CD 2 and Assignments of Voters from the Envelope

Group	VAP in Envelope	VAP in District	(% of the Group in Envelope assigned to District)
Total	768343	563028	(73.28%)
White	432872	360714	(83.33%)
Black	249655	134639	(53.93%)
Hispanic	41120	33556	(81.61%)
Other	44696	34119	(76.34%)

Table 11 shows the results of the crosstabs of party and race for Enacted CD 2. Again, with respect to voters in the same Democratic Party, white Democratic voters (70.87%) are much more likely to be assigned to CD 2 from the envelop than Black Democratic voters (48.81%). With respect to the Republican Party, white Republican voters are also more likely (90.62%) to be assigned to CD 2 than Black Republican voters (68.61%). Thus, the probability of Black voters being assigned to CD 2 (regardless of their party affiliation) is much lower than that of white voters.

Table 11: Enacted CD 2 and Assignments of Voters—race v. party

Party Primary	Number of Voters in Envelop	Number of Voters in District	(% of Group That is in District)
White_DEM	21154	14991	70.87
Black_DEM	45343	22133	48.81
White_REP	74410	67433	90.62
Black_REP	1552	1065	68.61

In sum, this section confirms my findings presented in the previous section about the driving and greater effect that the race of a voter as compared to their party affiliation (based on an analysis of two, recent gubernatorial primaries) determines the assignment of voters to districts in the Enacted Map, particularly for CDs 1 and 2.

IX. Conclusion

The empirical analyses clearly revealed that in 7 out of the 7 general Congressional elections in which Black voters expressed a preference for Black candidates, that preference was not shared by a majority of white voters. This RPV pattern is confirmed not only by these endogenous, biracial general elections, but also by the six statewide exogenous elections during the last three election cycles. Despite the highly cohesive bloc voting by Black voters for the Black preferred candidates, the white majority voters typically voted as bloc to defeat the candidates preferred by Black voters in these elections. Thus, my empirical analysis indicates that the characteristics of “racial polarization,” as defined by the Supreme Court in *Thornburg v. Gingles*, (478 U.S. 30 at 53 n.21), exist in South Carolina’s recent elections.

To address the effect of RPV on the opportunity of Black voters in South Carolina to elect the candidate of their choice, the Plaintiff’s two proposed Plans are clearly more effective than the Enacted Redistricting Plan in providing Black voters the opportunity to elect their preferred candidates in two rather than one congressional districts. Additionally, a plan proposed by a South Carolina Senator Harpootlian, also is more effective than the Enacted Redistricting Plan, though less than Plaintiff’s two proposed Plans, in providing Black voters the opportunity to elect their preferred candidates in two rather than one congressional districts.

Moreover, there is strong empirical evidence that race, rather than presumed party affiliation, is a driving factor in whether voters remain or are moved in and out of the districts challenged by Plaintiffs, particularly CDs 1 and 2, in the Enacted Plan.

X. Appendix

Appendix 1: Curriculum Vita.

Appendix 2: Past Voting Rights Expert Work

Appendix 3: Data Acquisition, Processing and Aggregation Process

I reserve the right to continue to supplement my report in light of additional facts, testimony and/or materials that may come to light.

Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed on: Date: April 6, 2022

A handwritten signature in black ink, appearing to read 'Baodong Liu', is written over a horizontal line.

Baodong Liu, Ph.D.

Appendix I

Curriculum Vitae

Baodong Liu, Ph.D.

Professor (with Tenure) in Political Science and Ethnic Studies

University of Utah

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PROFESSIONAL EXPERIENCE

Professor of Political Science and Ethnic Studies, affiliated with Asian Studies, 2008-present

Associate Chair, Political Science Department, 2015-2017

Interim Director, Ethnic Studies Program, 2011-2013

University of Utah

Courses taught: Advanced Quantitative Methods (graduate), American Political Behavior (graduate), Race and Political Volatility in the US (graduate/undergraduate), Voting, Election and Public Opinion, Racial and Ethnic Politics, Political Analysis, Asian American Contemporary Issues, Social Justice and Inequality, Asian Pacific American Experiences, Methodology in Ethnic Studies.

TRISS Endowed Professor in Political Science, 2007-2008

Associate Professor (early promotion to associate professor 2005, early tenure 2006)

Assistant Professor, 2002-2005

Department of Political Science

University of Wisconsin-Oshkosh

Courses taught: Race and Ethnicity in American Politics, Politics of Urban Growth, Political Method, State and Local Government, Political Analysis, American Government, National, state and Local Government.

Assistant Professor of Political Science

Department of Political Science

Stephens College, Columbia, Missouri, 1999 - 2002

Courses taught: Urban and Minority Politics, Legislative Process, American Presidency, Campaigning and Lobbying, Macroeconomics, American Government, and Introduction to Statistics.

Consultant, Expert Witness, Principal Investigator, Opinion Writer/Commentator, 2000-present

Provided research services to NAACP LDF, the US Department of Justice, New America, Navajo Nation, Southern Coalition for Social Justice, National Science Foundation, Lawyers' Committee for Civil Rights Under Law, Florida State Legislature, Illinois State Legislature, Wisconsin Security Research Consortium, Fond du Lac School District, Johnson Controls, Inc, City of Waupaca (WI), and Wisconsin Public Service, among others.

Served also as a commentator and/or opinion writer for Salt Lake Tribune, ABC4News, Hinkley Forum, NPR, AP, Daily Utah Chronicle, ETtoday, Chinese Americans, Milwaukee Sentinel Journal, Daily Caller, KSL, among other media outlets.

EDUCATION

Ph.D. in Political Science (1999), University of New Orleans, Louisiana

Dissertation: *Black Candidates, White Voters and Racial Context*

Winner of Byran Jackson Award, Urban Politics Section, American Political Science Association, and Winner of Ted Robinson Award for the best research in race and ethnicity, Southwestern Political Science Association

M.A. in *Political Science* (1995), Oklahoma State University, Stillwater, Oklahoma

LL. B (1987), The East China University of Political Science and Law, Shanghai, China

Post-Doctoral Educational Program Participant

National Science Foundation's "Local Elections in America Project Workshop," Macalester College, Saint Paul, MN (2009)

Methodological Issues in Quantitative Research on Race and Ethnicity, Inter-University Consortium for Political and Social Research (ICPSR), University of Michigan (2006)

Mapping Your City with GIS Workshop, New Urban Research, Madison, Wisconsin (2005)

Jessie Ball duPont Summer Seminars for Liberal Arts College Faculty, the National Humanities Center, Research Triangle, North Carolina (2001)

PROFESSIONAL PUBLICATIONS (contribution is in the order of authors for publications with multiple authors).

A) Books

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Liu, Baodong and Feng Ling. (2018). “Liberalism or Conservatism: Which One Contributes to America More?” *Chinese Americans*, No. 1565. (in Chinese).

Liu, Baodong. (2018). “The Lawsuit against Harvard and Asian-American Attitude toward Affirmative Action,” *Chinese Americans*, No. 1207. (in Chinese).

Liu, Baodong. (2016). “Lu Xun’s Attack on Old Chinese Regime and St. Augustine’s Self Examination,” *Overseas Campus* (in Chinese).

Liu, Baodong. (2015). “Will Christianity Bring about Democracy?” *Overseas Campus* 130 (June): 40-43. (in Chinese)

Liu, Baodong. (2011). “New Ethnic Studies Major at the U: Education for the 21st Century” *Diversity News* 2011 (Fall). <http://diversity.utah.edu/newsletter/fall-2011/ethnic-studies-degree.php>.

Liu, Baodong (2008). “The Urban Politics Field as We Know It.” *Urban News* 22 (1): 1-2.

Liu, Baodong. (2008). “Negative Campaigning a Desperate Strategy,” *The Daily Utah Chronicle*. Guest Column. October 20, 2008.

Liu, Baodong. (2007). “The 2006 Midterm Election: Angry Voters? Yes! Clear Vision? No!” *Wisconsin Political Scientist* XIII (2): 9-10.

Liu, Baodong. (2006). “Midterm Election Results Show No Clear Future Vision.” Guest Column, *Advance-Titan*. Nov. 9, 2006: A5.

Liu, Baodong and James Vanderleeuw. (2003). “Local Policymakers and Their Perceptions of Economic Development: Suburbs, Central Cities and Rural Areas Compared” *Wisconsin Political Scientist* IX (1): 4-7.

SOFTWARE DEVELOPMENT/GRANTS

diaglm, the author of the R software statistical package for diagnosing and visualization of violations of linear and nonlinear statistical modeling, published at GitHub (bblpo/diaglm). 2019.

diagglm, the author of the R software statistical package for diagnosing and visualization of violations of nonlinear statistical modeling, published at github (bblpo/diagglm). 2019.

Principal Investigator, “Authoritarianism in the Global Ethnic Chinese Communities”, a grant proposal supported by University Sabbatical Leave and Asia Center Travel Award. 2020. \$1500

Principal Investigator, with Co-Pi, Mike Cobbs (North Carolina State University) and Richard Engstrom (University of Houston). “Understanding the Support for Ranked-Choice Voting,” initial grant proposal supported by Political Reform Program, New America. Washington D.C. 2020. \$40,000

Co-PI, with Dennis Wei (PI) and Chris Simon. “Amenity, Neighborhood and Spatial Inequality: A Study of Salt Lake County,” Interdisciplinary Research Pilot Program (IRPP), College of Social and Behavioral Science, the University of Utah, 2015. \$10,000.

Co-PI, with Annie Isabel Fukushima (PI). “Victimization, Human Trafficking and Immigrants: Mixed Methods analysis of the Perceptions of Victimhood in U.S. Courts (2000 – 2015)”, submitted to National Institute of Justice, 2015. \$997,407. (rejected)

Co-PI, with Daniel McCool. “The Efficacy of American Indian Voting: A Pilot Project” Research Incentive Grant, College of Social and Behavioral Science, the University of Utah. (2014-). \$7500.

I have provided my Expert Witness Opinions on federal voting rights cases such as *Milligan, et al. v. Merrill, et al.*, Case No. 2:21-cv-01530-AMM and *Thomas, et al. v. Merrill, et al.*, Case No. 2:21-cv-01531-AMM (N.D. Ala. 2021), *Traci Jones et al vs. Jefferson County Board of Education et al*, (N.D. Ala. 2019); *CMA v. Arkansas* (E.D. Ark., 2019); *Alabama State Conference of the NAACP v. Pleasant Grove*, (N.D. Ala. 2018); *Navajo Nation, et al, vs. San Juan County, et al*, (D. Utah, 2012); *League of Women Voters of Florida, et al v. Detzner, et al*, (Fla., 2012); *Anne Pope et. al. v. County of Albany and the Albany County Board of Elections* (N.D.N.Y. 2011); *Radogno, et al v. State Board of Elections, et al*, (N.D. Ill. 2011); *NAACP v. St. Landry Parish et al*, (W.D. La. 2003); *Arbor Hill Concerned Citizens Neighborhood Association et al v. County of Albany* (N.D.N.Y. 2003); *Hardeman County Branch of NAACP v. Frost* (2003).

Expert Instructor, Racially Polarized Voting and Political Participation: EI and EZI. Expert Preparation Program, Community Census and Districting Institute. A grant supported by Ford Foundation and Southern Coalition for Social Justice, Duke University, Durham, North Carolina. 2010.

Principal Investigator, 2010-2012. A Multi-level Analysis of Obama Racial Coalition in 2008 and 2012. A project funded by the PIG grant of College of Social and Behavior Sciences, the University of Utah.

Co-PI. Educational Succession Movements in U.S. Metropolitan Areas, proposal submitted to Seed Grants, the University of Utah. 2009. Rejected.

Recipient, Faculty Sabbatical Grant, 2008. University of Wisconsin Oshkosh, grant offered, but finally declined the offer due to job change.

Grant Director/Faculty Advisor, 2008. The WiscAMP program, National Science Foundation.

Principal Investigator, 2007. Wisconsin Research and Development Capacity Study. A project funded by Wisconsin Security Research Consortium.

Principal Investigator, 2007. The Impact of Industrial Involvement on Science Education in Wisconsin. A project funded by Johnson Control, Inc.

Principal Investigator, 2007. The Impact of Fond du Lac School District on Local Economic Development. A project funded by Fond du Lac School District.

EI Methodologist, 2007. Retrogressive Effects of H.B. No. 1565 on Latino Voters in the Bexar County Metropolitan Water District, TX.

Principal Investigator, 2006. The Impact of Economic Development on Citizen Opinions. A project funded by City of Waupaca, Wisconsin Public Services.

Principal Investigator, 2006. Leading the Big Easy: Will the Biracial Coalition Sustain Katrina? Institute on Race and Ethnicity, University of Wisconsin System. 2006.

Methodological Issues in Quantitative Research on Race and Ethnicity, Inter-University Consortium for Political and Social Research (ICPSR), Institute of Social Research, University of Michigan, 2006.

Off-Campus Program Grant, Faculty Development, the University of Wisconsin-Oshkosh, 2006.

GIS and Social Research, Small Research Grant, Faculty Development Program, the University of Wisconsin-Oshkosh, 2005.

Principal Investigator, Getting the White Votes, American Political Science Association Research Grant, Washington D.C., 2003.

Principal Investigator, A Comparative Study of Urban Elections, Faculty Research Development Grant, the University of Wisconsin-Oshkosh, Oshkosh, Wisconsin, 2004.

Principal Investigator, Getting the White Votes, Faculty Research Development Grant, the University of Wisconsin-Oshkosh, Oshkosh, Wisconsin, 2003.

Advanced Graduate Student Travel Grant, the American Political Science Association, 1999

AWARDS AND HONORS

Nominee for the Career & Professional Development Center, Faculty Recognition Program, University of Utah. 2018.

Winner of A Showcase of Extraordinary Faculty Achievements (for publication of my book, Social Research: Integrating Mathematical Foundations and Modern Statistical Computing. San Diego: Cognella Academic Publishing), With commendation from the J. Willard Marriott Library and the Office of the Vice President for Research. University of Utah. 2016

Nominee for the Social and Behavior Science College Superior Research Award (senior scholar category), nominated by the political science department in both 2011 and 2012.

Professor of Political Science (National 985-Plan Supported Foreign Scholar), Taught Summer Class at School of Government, Nanjing University, Nanjing, China. 2012.

TRISS Endowed Professorship for Excellence, University of Wisconsin Oshkosh, 2007-8

Artinian Award for Professional Development, Southern Political Science Association, 2004

Byran Jackson Award for the best research/dissertation in racial and ethnic politics in an urban setting, Urban Politics Section, the American Political Science Association, 1999

Ted Robinson Award for the best research in race and ethnicity, Southwestern Political Science Association, 1999

Who's Who in America, 2001-2006, Marquis, USA.

Davis Summer Research Grant, Stephens College, 2001

Firestone Baars Grant for Faculty Development, Stephens College, 1999-2001

Vice President Discretion Grant for Research, Stephens College, 2001, 2000

Advanced Graduate Student Travel Grant, the American Political Science Association, 1999

Graduate Student Travel Grant, University of New Orleans, 1997

The Best Graduate Student Paper Award, Department of Political Science, Oklahoma State University, 1993

Pi Sigma Alpha, National Political Science Honor Society, 1994

PROFESSIONAL POSITIONS

Member, Review Board, Journal of Behavioral and Social Sciences, 2019-present

Member, Board of Directors, National Association for Ethnic Studies, 2013-2015

Editorial Board, Urban Affairs Review, 2008-2011

Editorial Advisor, International Encyclopedia of Political Science, CQ Press, 2005-2011

Editor, Urban News, Urban Politics Section, American Political Science Association, 2004-2010

Chair, Urban Politics Program, Southern Political Science Association Annual Convention, 2008

Co-Chair, Asian Pacific American Caucus, American Political Science Association, 2004-2006

Member, American Political Science Association Small Research Grant Committee, 2005

AS A JUDGE OR REVIEWER OF WORKS OF OTHER SCHOLARS FOR ACADEMIC JOURNALS OR PRESSES

2001-present

Perspectives; Politics and Religion; American Political Science Review; Lexington Books; Journal of Behavioral and Social Sciences; The National Science Foundation; Sage Publications, W. W. Norton & Company, Inc; McGraw Hill Publishing; Journal of Politics; National Political Science Review, Political Analysis; Social Science Quarterly; Urban Affairs Review; Political Research Quarterly; Politics and Policy; Journal of Urban Affairs; American Politics Research; Public Opinion Quarterly; Political Behavior; Sociological Methods and Research

PROFESSIONAL AND COMMUNITY SERVICES

Reviewer, University URC Faculty Scholarly Grant Program, 2020

Chair, Faculty Tenure and Promotion Committee, Political Science, 2019-2020

Member, Curriculum Overhaul Committee, Ethnic Studies, 2018-2019

Member, Faculty Tenure and Promotion Committee, Political Science, 2018-2019

Chair, Faculty Tenure and Promotion Sub-Committee, Ethnic Studies, 2017-2018

Member, Graduate Committee, political science department, the University of Utah, 2014-2018

Member, Executive Committee, political science department, the University of Utah, 2014-2018

Faculty Senator, the University of Utah, 2015-2018

Chair, American Politics Field, political science department, the University of Utah, 2014-2018

Member, GC Building Committee, Social Science Lab, 2015-2018

Expert Volunteer for Utah Fair Redistricting Legal Team, 2017

Member, Assistant Vice President for Diversity Search Committee, 2015-2016

Member, Ad Hoc Graduate Committee for Writing, 2015-2016

Chair, Faculty Joint Appointment Search Committee, ethnic studies program and theatre department, the University of Utah, 2014-2015

Member, Betty Glad Foundation Committee, political science department, the University of Utah, 2014-2015

Chair, Awards Committee, National Association for Ethnic Studies, 2014

Faculty Mentor to Junior Faculty, Department of Political Science, 2013-2018

Chair, University of Utah MLK Committee. 2012-2013.

Member, Graduate School Dean Search Committee, 2013.

Member, University Diversity Leadership Team, the University of Utah. 2010-2013.

Member, University Teaching Program Committee, the University of Utah, 2011-2013.

Member, University Diversity Curriculum Committee, Undergraduate Studies, the University of Utah, 2011-2013.

Judge, The Research Day of College of Social and Behavioral Science, 2011-2013.

Member, Organizing Committee, International Conference on Urbanization and Development in China, University of Utah, August 2010.

Member, Retention, Promotion, and Tenure Committee, Department of Political Science, the University of Utah. 2011-2013.

Assistant Director, Ethnic Studies Program, the University of Utah. 2010-2011.

Committee Member, Undergraduate Studies, Department of Political Science, the University of Utah. 2009-2011.

Committee Member, Utah Opportunity Scholarship, the University of Utah, reviewing and making decisions on more than 200 applications. 2009-2010.

Member, Ethnic Studies Positions Exploration Committee, the University of Utah. 2009-2010.

Member, Marketing Committee, Department of Political Science, the University of Utah. 2009-2010.

Guest Speaker, “Obama and the 2008 Presidential Election: A Spatial Analysis” at the Graduate Seminar titled Introduction of Survey Research in Higher Education. College of Education. The University of Utah. Feb. 3, 2009.

Special Speaker, “Obama and the Minimum Winning Coalition” Ethnic Studies Works in Progress Presentation. The University of Utah. Dec., 5, 2008.

Special Speaker, “Election 2008: A Symposium,” Hinckley Institute of Politics, University of Utah. October 6, 2008.

Special Speaker, “Predicting the 2008 Presidential Election Outcomes” Political Science Department, the University of Utah. Sept. 25, 2008.

Political Commentator for reporting from Salt Lake Tribune, AP, EFE Hispanic News Services, Milwaukee Journal Sentinel, WHBY, KFRU radio stations, the Post-Crescent, Oshkosh Northwestern, Columbia Missourian, and the Daily Utah Chronicle. December 1999 to present.

Faculty Representative for University of Wisconsin-Oshkosh, ICPSR, University of Michigan, 2007-2008

Member, Board of Trustees, Wisconsin International School, 2007-2008

Member, UWO Office of Institutional Research Advisory Board, 2007-2008

President, Northeast Wisconsin Chinese Association, 2007 (executive vice president, 2006)

Member, Program Evaluation Committee. College of Letters and Science, University of Wisconsin-Oshkosh, 2007-2008

Member, Political Science Curriculum, Center for New Learning, University of Wisconsin-Oshkosh, 2007-2008

Moderator, Oshkosh City Forum, Mayoral Candidates’ Debates, March 23, 2005

Grant Reviewer, Faculty Development Program. University of Wisconsin-Oshkosh, 2004-2008

Member, African American Minor Counsel. University of Wisconsin-Oshkosh, 2006-2008

Member, Search Committee for University Foundation President. University of Wisconsin-Oshkosh, 2005-2006.

Member, Faculty Senate Libraries & Information Services Committee. University of Wisconsin-Oshkosh, 2005-2008.

Chair/Member, Curriculum Committee, Dept. of Political Science, University of Wisconsin-Oshkosh, September 2002-2008.

Chair, Budget Committee, Dept. of Political Science, University of Wisconsin-Oshkosh, September 2007-2008.

Member, Personal Committee, Dept. of Political Science, University of Wisconsin-Oshkosh, September 2007-2008.

Member, Search Committee, Dept. of Political Science, University of Wisconsin-Oshkosh, September 2002-2008.

Faculty Director, the Stephens College Model UN Team, National Model United Nations Conference, New York, New York, March, 2002.

Chair, Political Science Search Committee, Stephens College. August 2001 to May 2002.

Member, Editorial Advisory Board, Collegiate Press, San Diego, California. 2000 to 2001.

Chair, Harry Truman Scholarship Committee, Stephens College. 2000 to 2002.

Member, Strategic Planning and Budgeting Committee, Stephens College. 2000 to 2002.

CONFERENCE PAPER/PROCEEDINGS

Liu, Baodong. "Racial Prejudice behind the Anti-Affirmative Action Attitude of Asian Americans," paper presented at the Western Political Science Association Annual Conference. San Diego. April 2019.

Liu, Baodong, Porter Morgan and Dimitri Kokoromytis. "Immigration, Nation-State Contexts and Value Changes of Ethnic Chinese" paper presented at the Midwest Political Science Association Annual Conference. Chicago. April 2019.

Baodong Liu. "The Strategical Religious Voter", paper presented at the Midwest Political Science Association Annual Meeting. Chicago, Illinois. April 2018.

Baodong Liu, Nicole Batt and Zackery Stickney. "Authoritarianism for and against Trump", paper presented at the Annual Meeting of Behavioral and Social Sciences, Las Vegas, Nevada. February 2018.

Baodong Liu. "The Strategic Religious Voter", paper presented at the Oxford Symposium on Religious Studies, Oxford, UK. March 2016.

Baodong Liu. "The Political Fate of Religious Minorities in the U.S. Presidential Elections." paper presented at the 19th Annual American Association of Behavioral and Social Sciences. Las Vegas, Nevada. February 2016.

Baodong Liu. "The Political Fate of Religious Minorities in the U.S. Presidential Elections." paper presented at the Hawaii University International Conferences on Arts, Humanities, Social Sciences and Education. Honolulu, Hawaii. January 2016.

Baodong Liu. "Statistical Inference and Visualization of Big Data in Urban Research", paper presented at the 3rd International Conference on China Urban Development, Shanghai, China. June 2015.

Baodong Liu. "Race, Religion, and U.S. Presidential Elections," paper presented at the Annual Convention of National Association for Ethnic Studies, Oakland, California. April 2014.

Baodong Liu. "Racial Context and the 2008 and 2012 US Presidential Elections," paper presented at the 11th Annual International Conference on Politics & International Affairs, Athens, Greece. June 2013.

Baodong Liu. "Deracialization in the Post-Obama Era," presented at the National Black Political Scientist Association Annual Meeting. Las Vegas, Nevada. March 2012.

Baodong Liu. "Obama's Racial Coalition," paper presented at the Southwestern Social Science Association Annual Meeting. Las Vegas, Nevada. March 2011.

Geoffrey M. Draper, Baodong Liu, and Richard F. Riesenfeld. "Integrating Statistical Visualization Research into the Political Science Classroom" Information Systems Educators Conference. 2010. Nashville, Tennessee. October 2010.

Baodong Liu. "Space and Time: An Empirical Analysis of 2008 Presidential Election," paper delivered at the Annual American Political Science Association Conference, Toronto, Canada, September 2009.

Baodong Liu. "Sequential and Spatial Voting: An Analysis of the 2008 Democratic Primaries," paper presented at the 2009 Midwest Political Science Association Annual Conference, Chicago, Illinois, April 2009.

Baodong Liu. "Social Capital, Race, and Turnout," paper presented at the 2008 Midwest Political Science Association Annual Conference, Chicago, Illinois, April 2008.

Baodong Liu and Lori Weber. "Social Capital and Voting Participation," paper presented at the 2008 Southern Political Science Association Annual Meeting, New Orleans, Louisiana, January 2008.

Baodong Liu. "The 2006 New Orleans Mayoral Election," paper presented at the 2007 Midwest Political Science Association Annual Conference, Chicago, Illinois, April 2007.

James Vanderleeuw, Baodong Liu, and Erica Williams. "The Political Ramifications of a Large-Scale Natural Disaster," paper presented at the 2006 annual conference, the American Political Science Association, Philadelphia, September 2006.

Baodong Liu. "EI Extended Model and the Fear of Ecological Fallacy," paper presented at the 2006 Midwest Political Science Association Annual Meeting, Chicago, Illinois, April 2006.

Baodong Liu. "The Fear of Ecological Fallacy and the Methods to Conquer It" paper presented at the Western Political Science Association Annual Meeting, Oakland, CA, April 2005.

Baodong Liu. "The Whites Who Stayed in the City," paper presented at the 2004 Midwest Political Science Association Annual Meeting, Chicago, Illinois, April 2004.

Baodong Liu. "Whites as a Minority and the New Biracial Coalition," paper presented at the 2004 Southern Political Science Association Annual Meeting, New Orleans, Louisiana, January 2004.

Baodong Liu and James Vanderleeuw. "Economic Development Priorities and Central City/Suburb Differences," presented at the 2003 Midwest Political Science Association Annual Meeting, Chicago, Illinois, April 2003.

James Vanderleeuw, Baodong Liu, and Greg Marsh, "Divided Leadership and Racial Reflexivity in Memphis: An Analysis of the 1991, 1995 and 1999 Mayoral Elections," presented at the 2003 Southwestern Political Science Association Annual Meeting, San Antonio, Texas, April 2003.

Baodong Liu. "White Votes Count: The Effect of Black Candidates' Qualifications on White Crossover Voting," paper presented at *the 98th American Political Science Association Conference*, Boston, Massachusetts, September 2002.

Baodong Liu. "Searching for a 'Qualified' Black Candidate," *Proceedings of the 97th American Political Science Association Conference*, San Francisco California, September 2001.

Baodong Liu. "In Defense of an Ethical Rational Choice Theory," paper delivered at the 2001 Jessie Ball duPont Fund Summer Seminars for Liberal Arts College Faculty, the National Humanities Center, Research Triangle, North Carolina, June 2001.

Baodong Liu. "Reconsidering Social Interaction Theory," presented at the 2001 Western Political Science Association Annual Meeting. Las Vegas Nevada, March 2001.

James Vanderleeuw, Baodong Liu, and John Johnson. "Economic Development Priorities of City Administrators: A Report on a Survey of City Administrators in Texas," presented at the 2001 Louisiana Political Science Association Convention, Lamar Texas, March 2001.

Baodong Liu. "Racial Transition: Explaining the Curvilinear Relationship between Black Density and White Crossover Voting," *Proceedings of the 96th American Political Science Association Conference*, Washington DC, September 2000.

Baodong Liu and James Vanderleeuw. "Racial Transition: Explaining the Curvilinear Relationship between Black Density and White Crossover Voting," presented at *the 96th American Political Science Association Conference*, Washington DC, September 2000.

Baodong Liu. "Electoral Law and the Russian Party System: A Comparative Study," presented at *the 58th Midwest Political Science Association Conference*, Chicago Illinois, April 2000.

James Vanderleeuw and Baodong Liu. "Rolling Off in the Context of Context," presented at *the 30th Southwestern Political Science Association Conference*, Galveston Texas, March 2000.

Baodong Liu. "The Changing Nature of Electoral Competition in Japan." Roundtable Discussant, *the 52nd Association of Asian Studies Annual Meeting*, San Diego California, March 2000.

Baodong Liu. "Racial Context and White Voting Strategies," presented at *the 95th American Political Science Association Conference*, Atlanta Georgia, September 1999.

Baodong Liu. "The President's Support in Congress: A Test of U.S. China Policy, 1980-1994," *The 1997 Southern Political Science Association Convention*, Norfolk Virginia, November 1997.

Baodong Liu. "Examining the Race Line: White Voting Behavior in New Orleans, 1980-1994," *The 27th Southwestern Political Science Association Conference*. New Orleans Louisiana, March 1997.

Baodong Liu. "Intrapartisan Defeats and the Nomination Strategies of the Japanese Liberal Democratic Party in the 1993 Election," *The Sixth Annual Graduate Student Research Symposium*. Oklahoma State University. Stillwater Oklahoma, February 1995.

INVITED SPEAKER, ROUNDTABLE/PANEL DISCUSSANT

Baodong Liu. “The 2020 Presidential Election and the Future of American Democracy”, invited lecture given to Chinese Americans on Zoom. September 2020.

Baodong Liu, Michael Cobb, and Richard Engstrom. “Understanding the Support for Ranked-Choice Voting in Two Southern Cities” talk given at the Electoral Reform Research Group, Research Development Conference. Washington D.C. February 2020.

Baodong Liu. ““Nation-State Context and Authoritarian Value Changes of Ethnic Chinese.” Talk given at the workshop of The Clash of Authoritarianisms: Secularism versus Islamism in Turkey, University of Utah. April 2019

Baodong Liu. “Trump’s Voters,” Panel Discussion on Presidential Primaries. Hinckley Institute of Politics. The University of Utah. Salt Lake City, Utah. March 2016

Baodong Liu. “Big Data in the Social Sciences,” The Consortium for Research on China and Asia (CROCA) and Policy at the Podium. The University of Utah. Salt Lake City, Utah. November 2014.

Baodong Liu. “Deracialization in the Historical Perspective,” the National Black Political Scientist Association Annual Meeting. Las Vegas, Nevada. March 2012.

“Educating the Best Students in the 21st century: the New Ethnic Studies Major at the University of Utah,” a presentation provided to the University Diversity Division Fall Retreat (March 12, 2011), the Ethnic Studies Program (August, 17, 2011), and the Community Council (September 13, 2011), at the University of Utah.

“Quantitative Analysis: Ecological Inferences and the Voting Rights Law,” a Ford Foundation Project, Duke University. July 24-28, 2010.

“Election 2008: A Symposium,” Hinckley Institute of Politics, University of Utah. October 6, 2008.

“IMMIGRATION TODAY: What are the Issues?” League of Women Voters of the Oshkosh Area Public Forum, November 12, 2007.

Theme Panel: “Bleaching” New Orleans? Power, Race, and Place After Katrina, the American Political Science Association Annual Meeting, Philadelphia, September 2, 2006.

“2006 Midterm Election Preview,” American Democracy Project, the University of Wisconsin, Oshkosh, November 2, 2006.

“Analysis on the 2006 Midterm Election Results,” American Democracy Project, the University of Wisconsin, Oshkosh, November 9, 2006.

“The Politics of New Americans: Studying Asian American Political Engagement,” the American Political Science Association Annual Meeting, Washington, D.C. September 3, 2005.

“Significance of Voting Rights Act,” Lawyers’ Committee for Civil Rights under Law, National Asian Pacific American Legal Consortium, Mexican American Legal Defense and Educational Fund, Washington DC: June 17-18, 2004.

“Protecting Democracy: Defining the Research Agenda for Voting Rights Reauthorization,” the Civil Rights Project, Harvard University, Cambridge, MA. May 10, 2004.

Chair, the Politics of Ethnicity and Self-Determination Panel, International Studies Association-Midwest Conference, St. Louis, Missouri, November 2, 2001.

PROFESSIONAL MEMBERSHIP

Pi Sigma Alpha, National Political Science Honor Society
American Political Science Association
Western Political Science Association
Midwest Political Science Association
Association for Asian American Studies
Association of Chinese Political Studies
Southwestern Political Science Association

Serve as an Advisor/Committee Member for the following Graduate Students

Nicole Batt (Ph.D Dissertation Chair)
Jake Peterson (Ph.D Dissertation Chair)
Matt Haydon (Ph.D. Dissertation Chair)
Porter Morgan (Ph.D. Committee)
Charles Turner (Ph.D Committee)
Geri Miller-Fox (Ph.D Committee)
Alex Lovell (Ph.D Committee)
Samantha Eldrudge (Ph.D Committee)
Leslie Haligan-Park (Ph.D Committee)
Nicole Cline (Master Committee Chair)
Oakley Gordon (Master Committee)
Michael McPhie (Master Committee)

Appendix II

Voting Rights Cases in which I Served as an Expert Witness

Milligan, et al. v. Merrill, et al., Case No. 2:21-cv-01530-AMM and *Thomas, et al. v. Merrill, et al.*, Case No. 2:21-cv-01531-AMM (N.D. Ala. 2021).

Traci Jones et al v. Jefferson County Board of Education et al, (N.D. Ala. 2019).

CMA v. Arkansas, (E.D. Ark. 2019).

Alabama State Conference of NAACP v. Pleasant Grove, (N.D. Ala. 2018).

Navajo Nation, et al, v. San Juan County, et al, (D. Utah 2012).

League of Women Voters of Florida, et al v. Detzner, et al, (Fla. 2012).

Anne Pope et. al. v. County of Albany and the Albany County Board of Elections (N.D.N.Y. 2011).

Radogno, et al v. State Board of Elections, et al, (N.D. III. 2011).

NAACP v. St. Landry Parish et al, (W.D. La. 2003).

Arbor Hill Concerned Citizens Neighborhood Association et al v. County of Albany, (N.D.N.Y. 2003).

Hardeman County Branch of NAACP v. Frost, (Tenn. 2003).

Appendix III

Data Acquisition

1. We acquired 2014, 2016, 2018, and 2020 precinct-level shapefiles from the Voting and Election Science Team at the University of Florida. We joined those shapefiles to 2014, 2016, 2018, and 2020 precinct-level election returns from the South Carolina Election Commission, which were processed and cleaned by OpenElections.
 - a. For the 2014 precinct-level election returns, we harmonized and joined those to the 2016 precinct-level shapefile acquired from the Voting and Election Science Team.
 - b. Since absentee and provisional vote was reported at the county level prior to the 2020 general election, we distributed the county-level absentee and provisional vote for each candidate to the precincts in the county, proportional to the share of the candidate's vote total in the county that was reported from each precinct.
2. We acquired 2014, 2016, 2018, and 2020 precinct-level reports of turnout by race and ethnicity from a third party who received them from the South Carolina Election Commission. Since these were not available for the 2014 general election or the 2010 Democratic primary, we downloaded precinct-level reports of turnout broken down by white and nonwhite voters from the South Carolina Election Commission's website.
3. We acquired 2010 precinct-level reports of vote choice for the Democratic primary from the South Carolina Election commission.
4. We acquired 2020 Census Block shapefiles, total population by race and ethnicity, and voting age population by race and ethnicity directly from the Census FTP portal.
5. We acquired 2010 Census Block shapefiles, total population by race and ethnicity, and voting age population by race and ethnicity from the Census FTP portal, using the R package PL94171.
6. We acquired VTD block assignment files and South Carolina congressional district block assignment files for the current plan from the Census website.
7. We acquired incumbent addresses from the Redistricting Data Hub. We then supplemented those with edits to incumbent addresses based on public information and records (e.g., information posted on the South Carolina State House website, South Carolina State Election Commission filings, and South Carolina property records) and input from Plaintiffs' counsel team, which were then geocoded to census blocks.
8. We acquired the enacted Congressional Plan from the South Carolina House of Representatives Redistricting 2021 website.

Data Processing

1. For datasets that were on the 2020 census block level (total population, voting age population, VTD assignment, current/passed/plaintiff State House district assignment), we joined these datasets to the 2020 Census block shapefile.
2. For datasets that were not on the level of the census block (2014, 2016, 2018, and 2020 election returns - precinct; 2014, 2016, 2018, and 2020 turnout reports – precinct), we disaggregated them down to the 2020 census block level. We then joined them to the 2020 Census block shapefile.

3. For data on the level of the 2010 precincts (2010 voting returns, 2010 voter turnout by race and ethnicity), we joined these up to 2010 VTDs cleaned and processed by the Harvard Election Data Archive team. We then disaggregated these down to the level of the 2020 Census blocks.
4. For data on the level of the 2010 Census blocks, we used the Census's block relationship files to pro-rate these to the level of the 2020 Census blocks.

Data Aggregation

1. We aggregated the full block-level dataset up to the level of the 2020 voting districts, taking into account splits of voting districts by the current and passed Congressional Plans.